

The 2019 July 2 Total Solar Eclipse, La Higuera, Chile

Alphonse Sterling
NASA/MSFC

2019 July 2 Total Solar Eclipse La Higuera, Chile

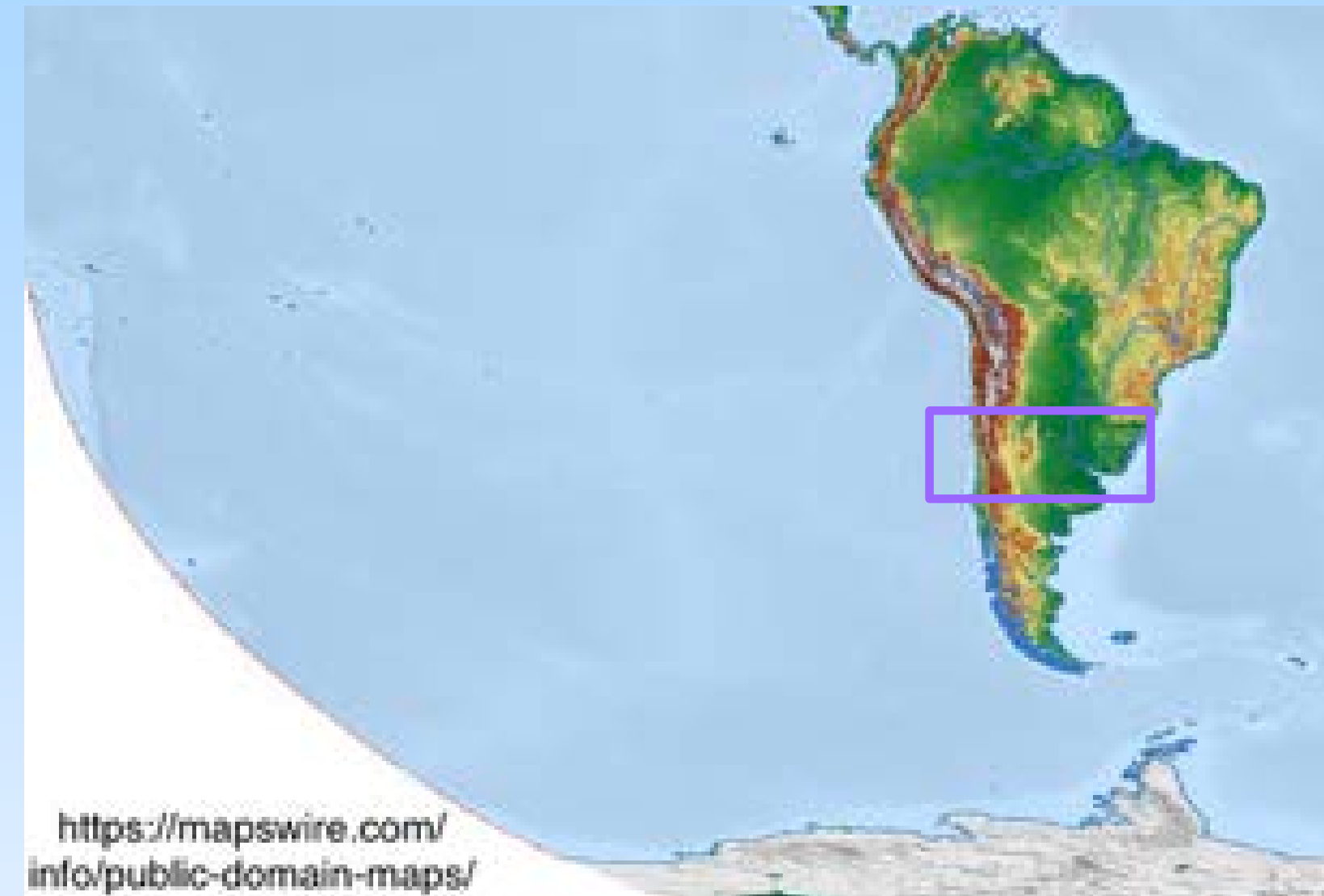


Figure 2. Orientation map showing details for our centerline site (Courtesy of Xavier Jubier and Google maps). (From Pasachoff et al. 2020.)



PM 3:18 JUN/29/2019



PM 3:20 JUN/29/2019



PM 4:56 JUN/29/2019



PM 4:09 JUN/29/2019





PM 6:36 JUL/ 1/2019



PM 7:33 JUL/ 1/2019



PM 7:33 JUL 1/2019



PM 2:38 JUL/ 2/2019



PM 5:16 JUL/ 2/2019



PM 5:17 JUL/ 2/2019

Geek Stuff....

- Takahashi FSQ-106ed.
 - f/5 (FL=530 mm).
 - Four-element Petzval design.
- Takahashi EM-11 mount.
- Canon EOS 700D (T5i).

Solar Eclipse Maestro - by Xavier Jubier

http://xjubier.free.fr/en/index_en.html

```
##### TOTALITY #####
#
PLAY,C2,-,01:30.0,Filters_Off.wav, , , , , , , , ,FILTERS OFF!!!!

PLAY,C2,-,00:45.0,Filters_Off.wav, , , , , , , , ,FILTERS OFF!!!!
# give me time to remove filter

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TAKEPIC,C2,-,00:01.0,D700nH,1/125,11.0,100,1.0,RAW,None,Y, Diamond Ring

#----- C2 -----
TAKEPIC,C2,+,00:02.5,D700nH,1/1000,16.0,100,1.0,RAW,None,Y,Chromosphere
TAKEPIC,C2,+,00:06.0,D700nH,1/1000,16.0,100,1.0,RAW,None,Y,Chromosphere

#----- CORONAL SEQUENCE -----
# 1000 just done, so start with 500:
TAKEPIC,C2,+,00:09.5,D700nH,1/500,16.0,100,1.0,RAW,None,Y,Corona
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```




PM 8:01 JUL/ 2/2019















Refined Results











Fully Processed Results







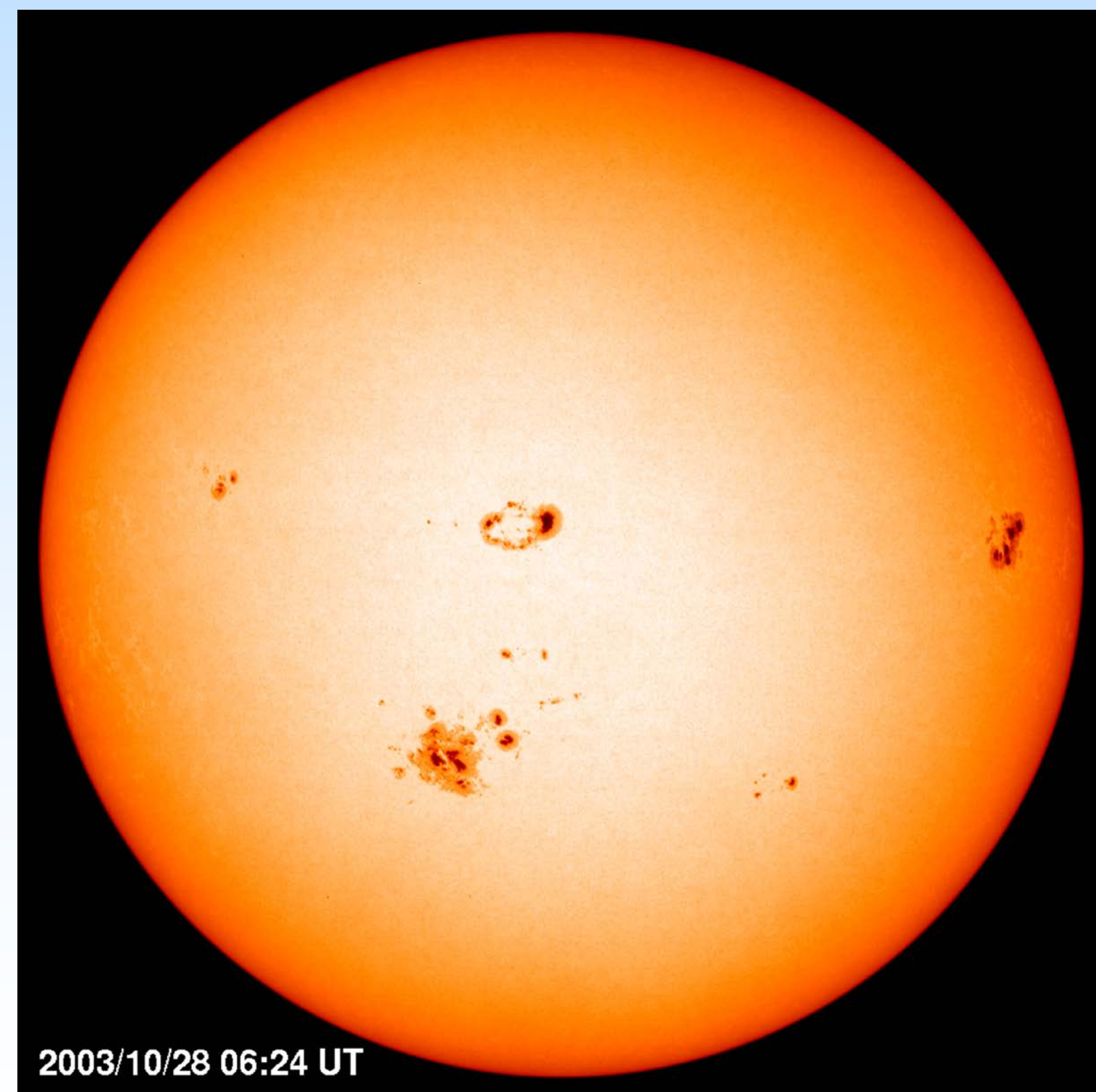
AM 2:26 JUL/ 3/2019

Coronal Structure

The Solar Atmosphere

The Outer layers (Atmospheres) of the Sun:

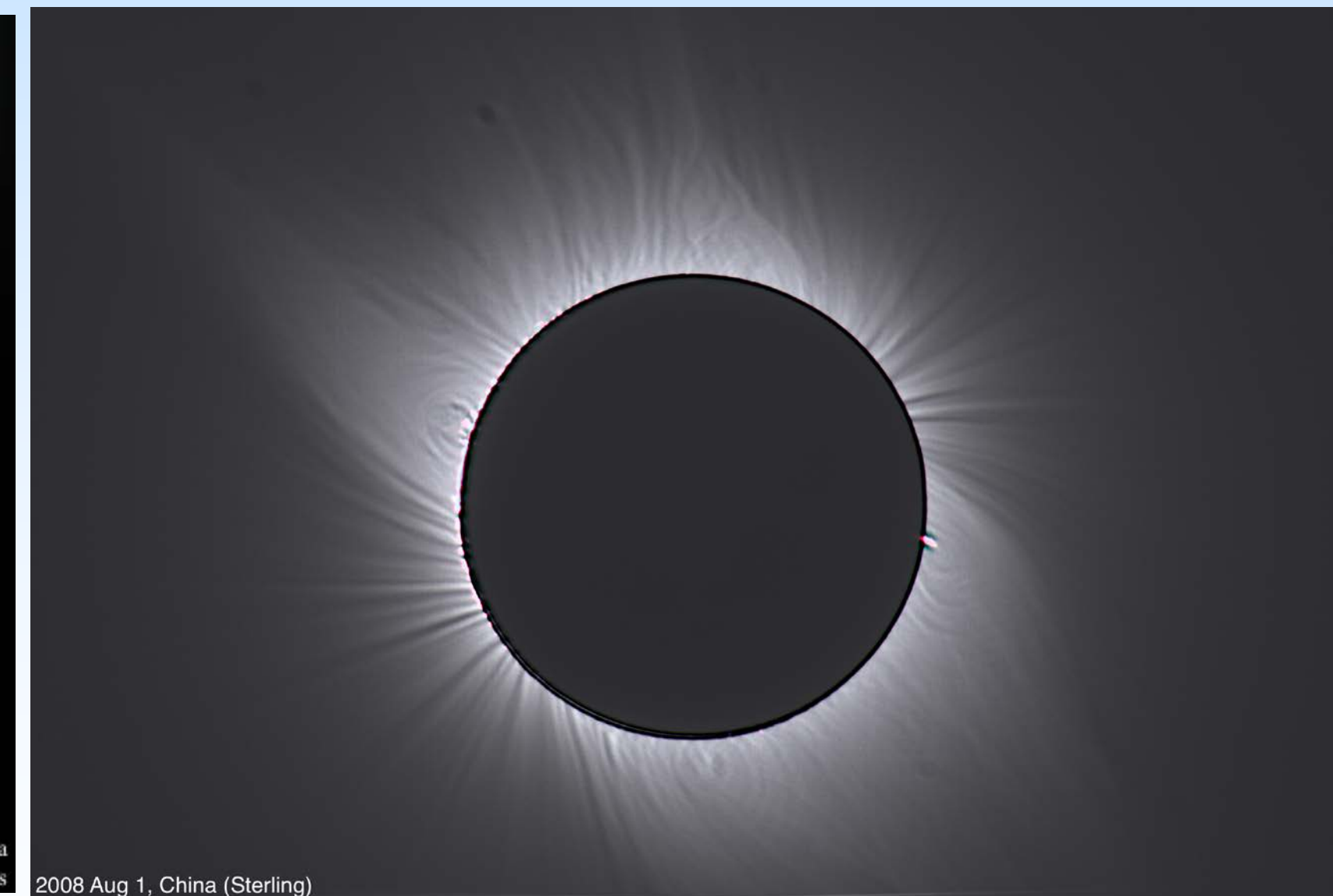
Photosphere

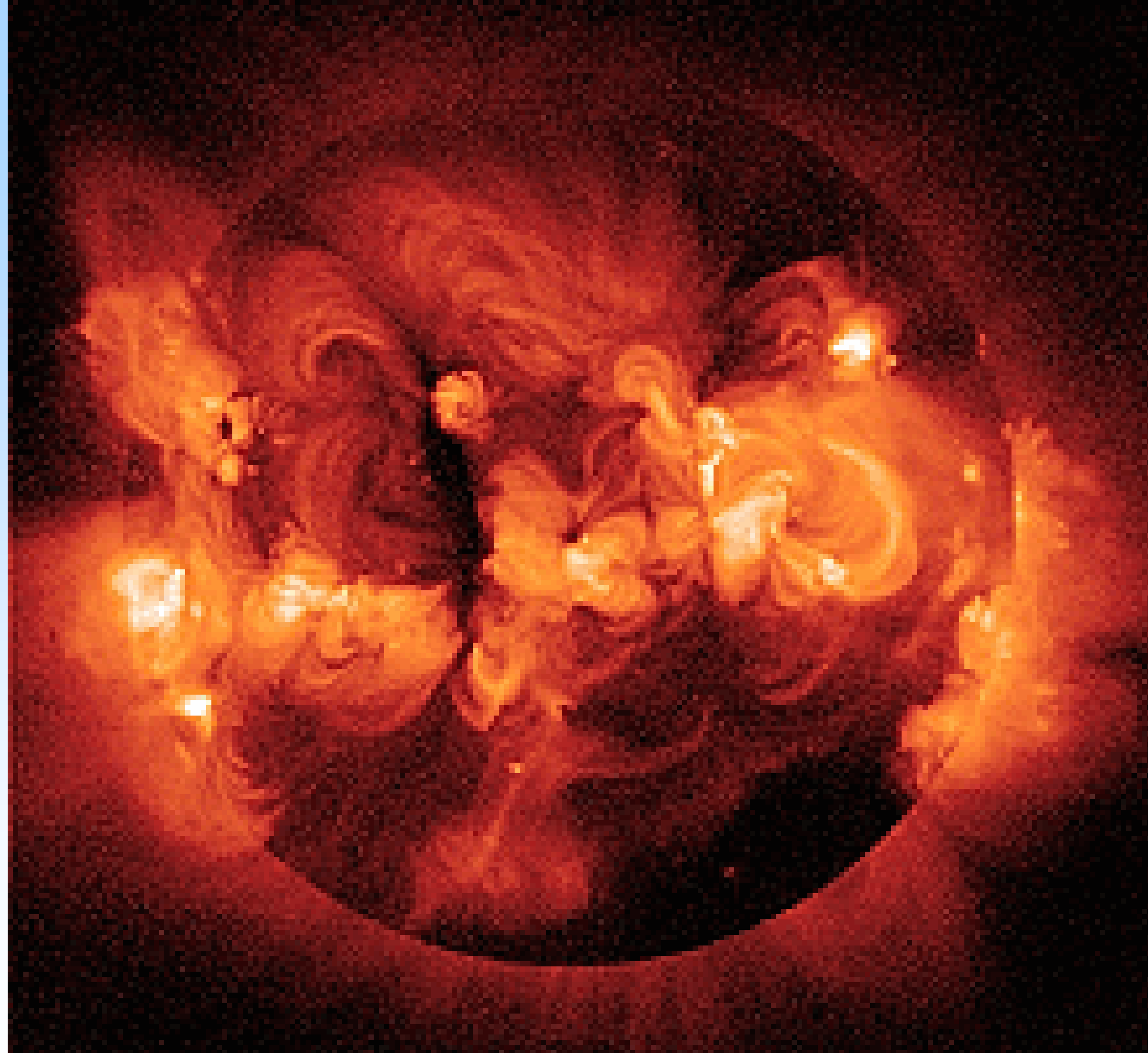


Chromosphere



Corona



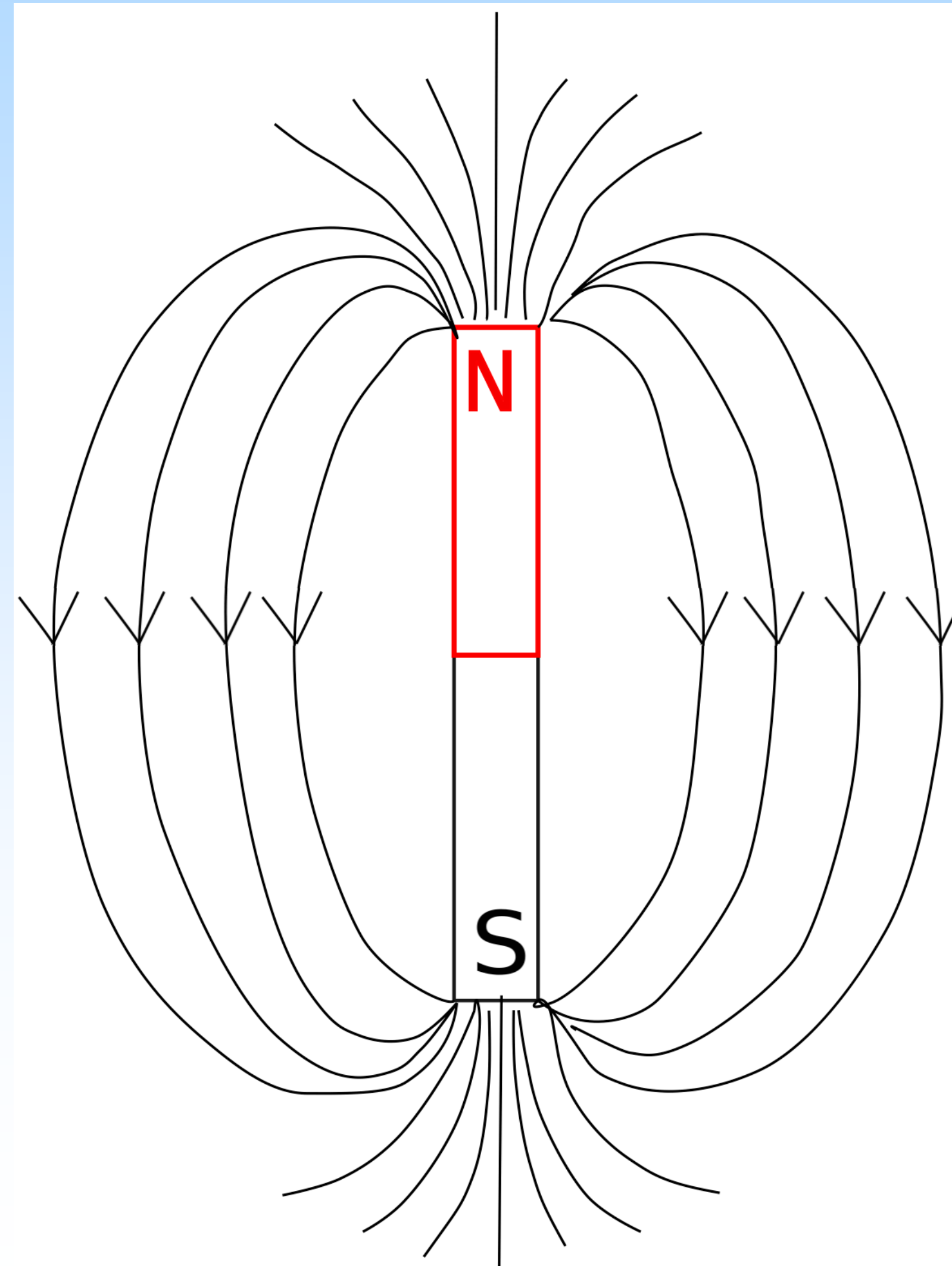


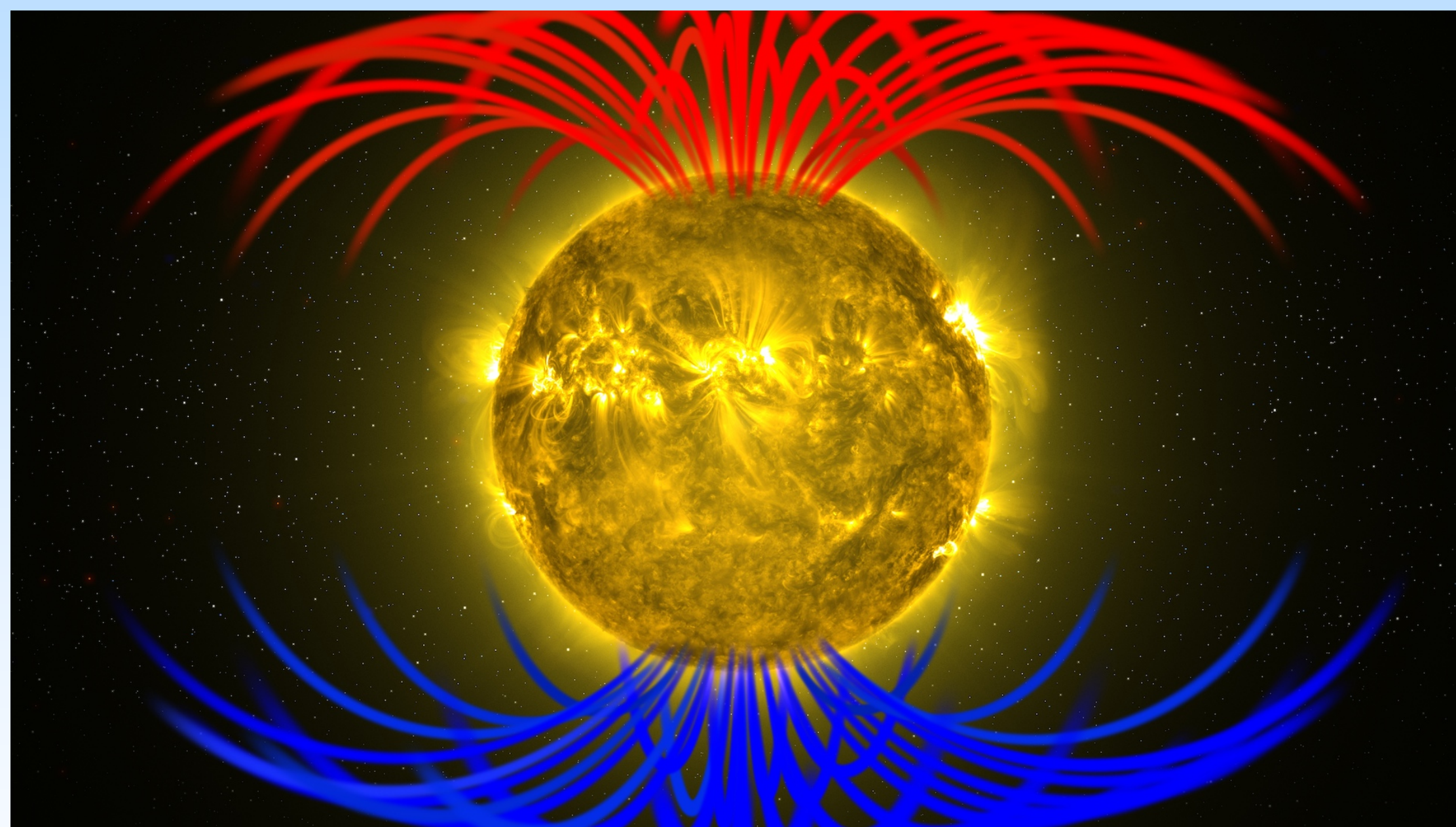
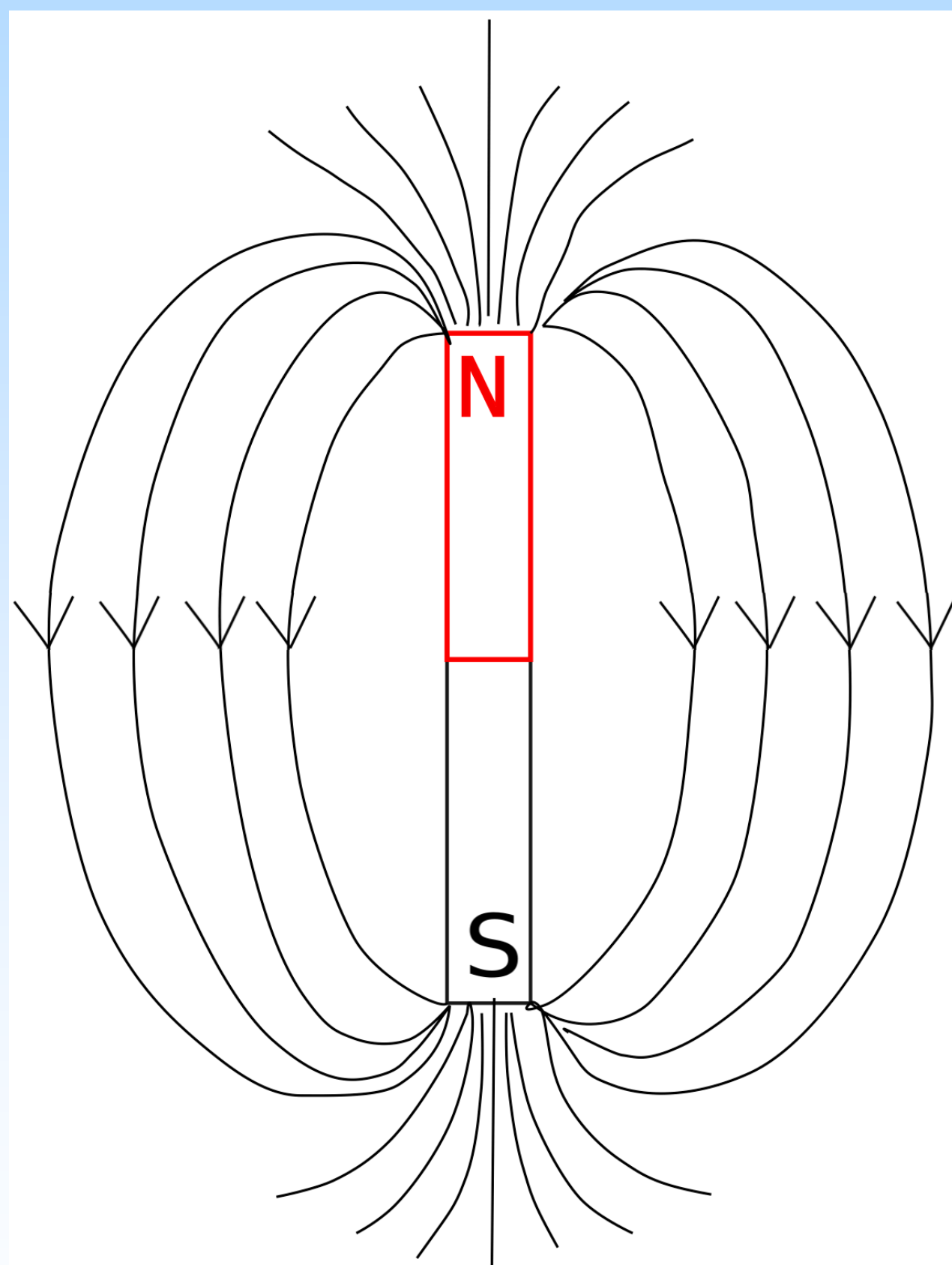
The Corona from Yohkoh/SXT

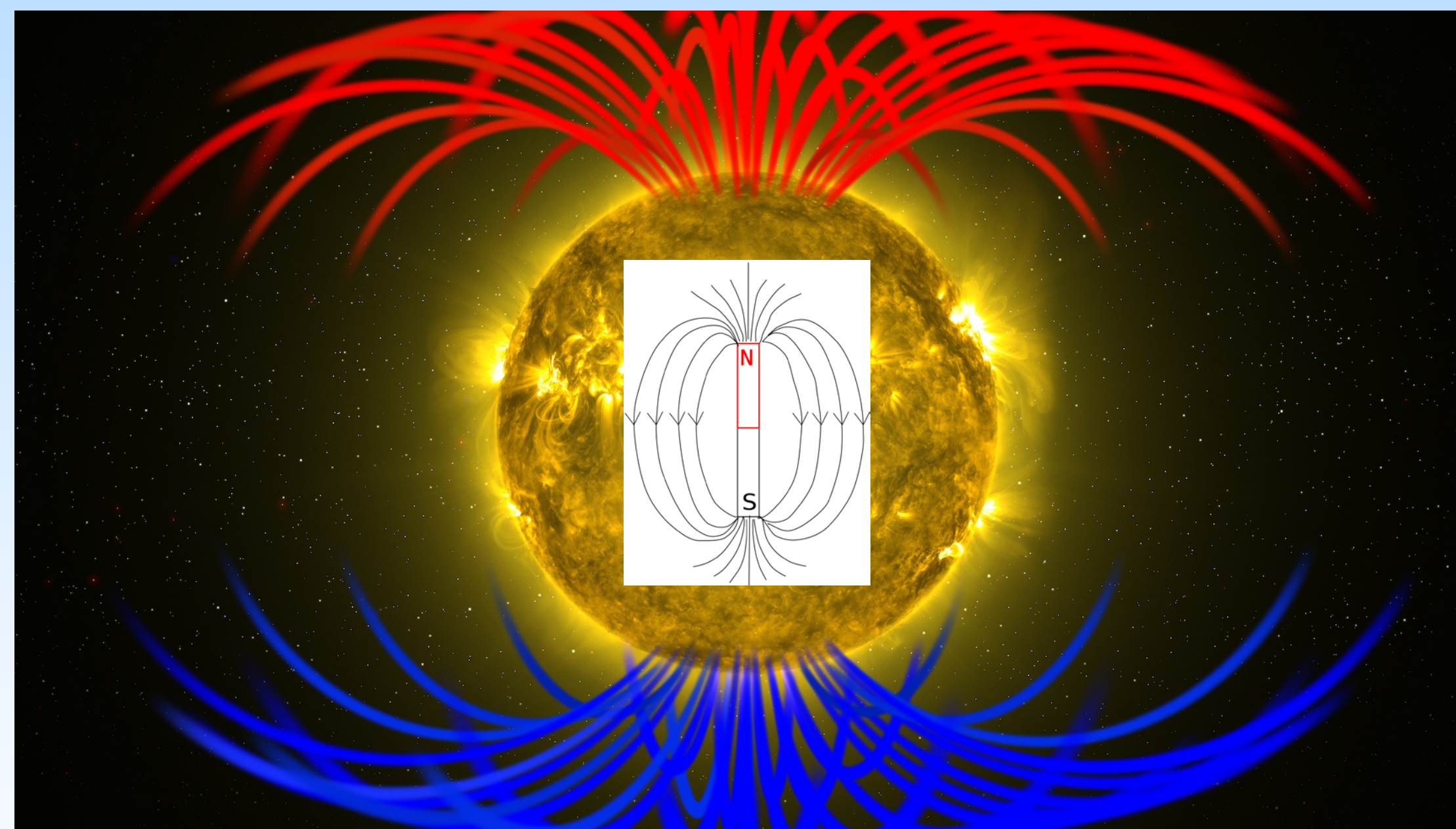
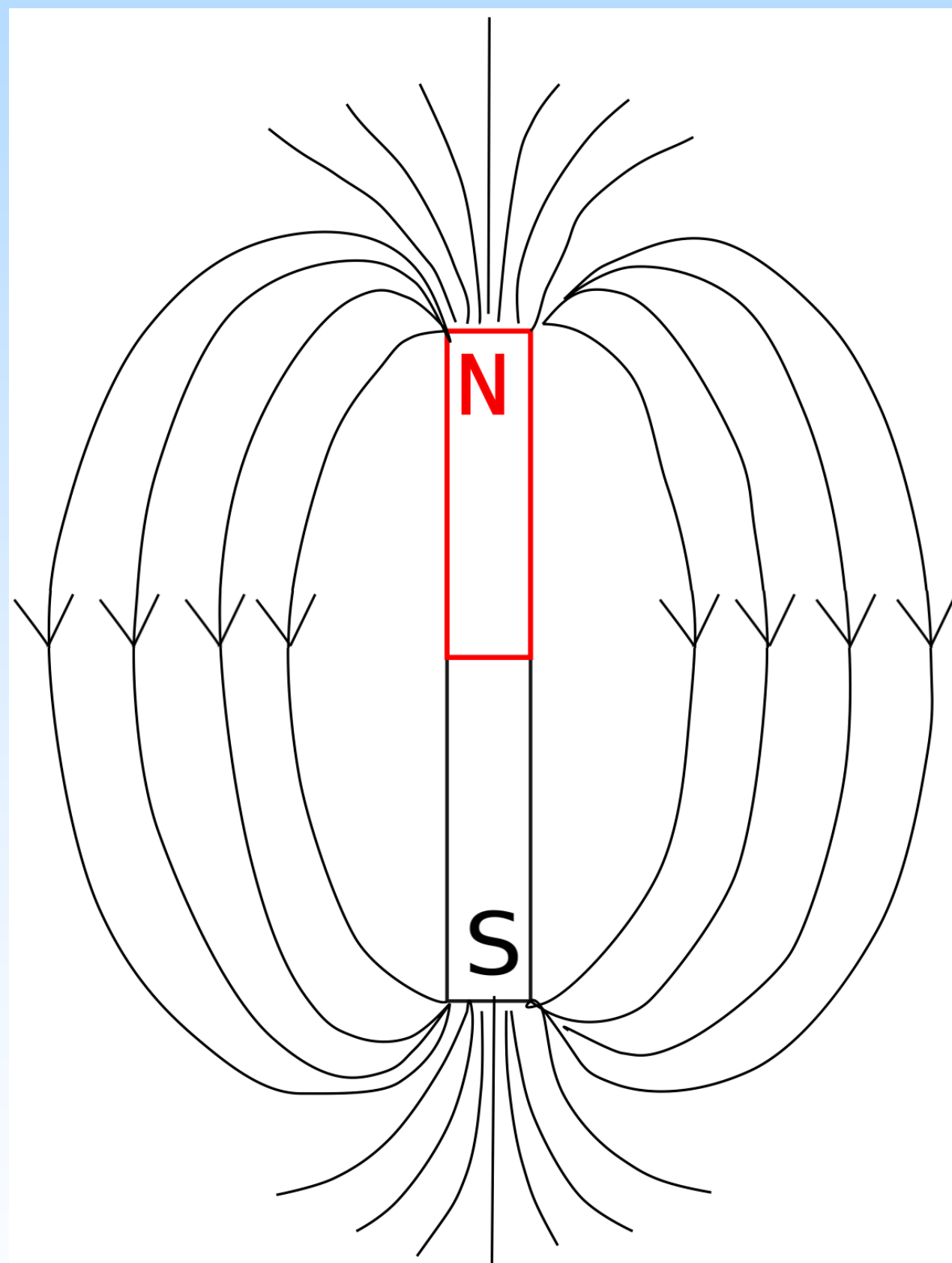
NASA

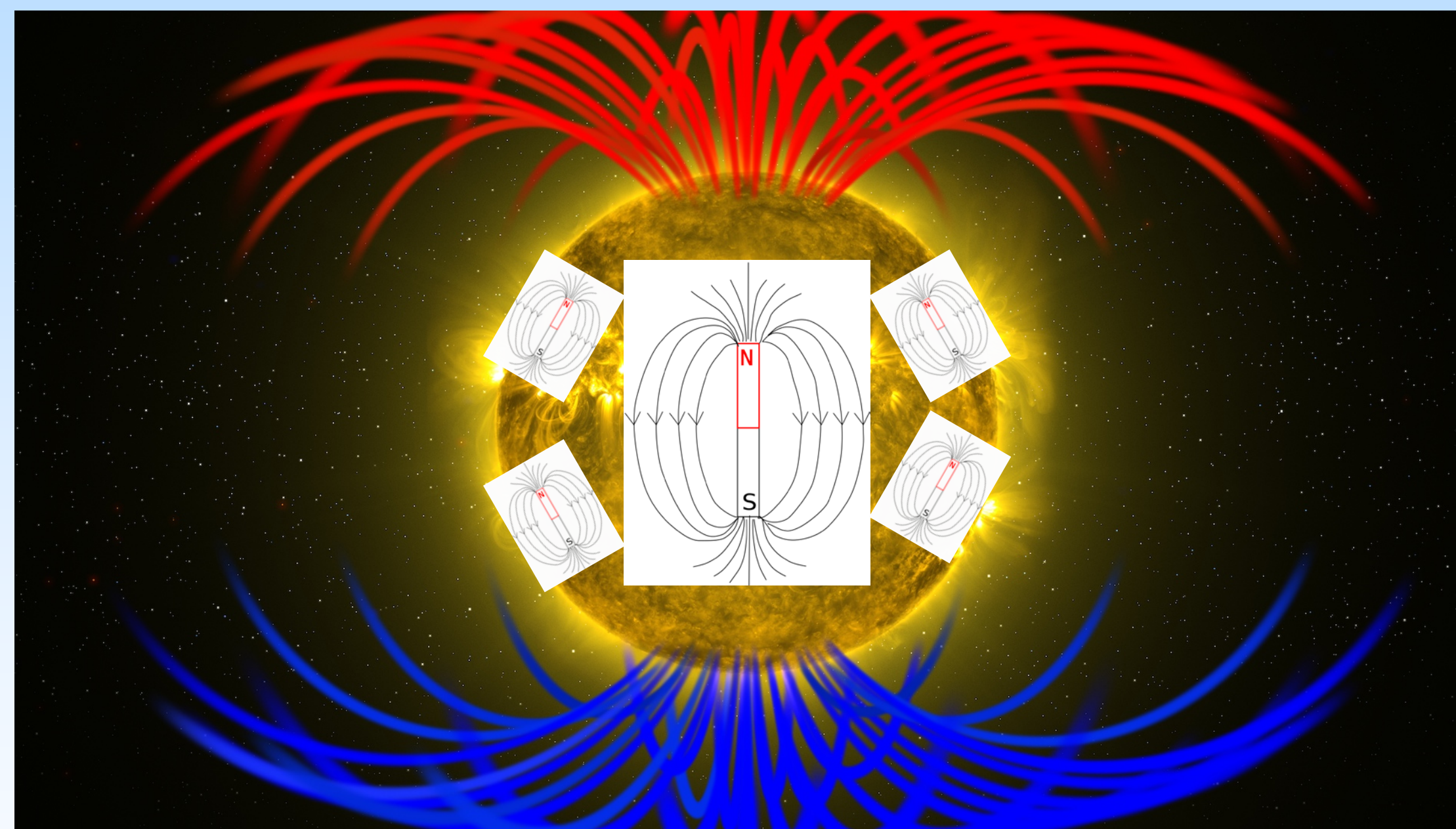
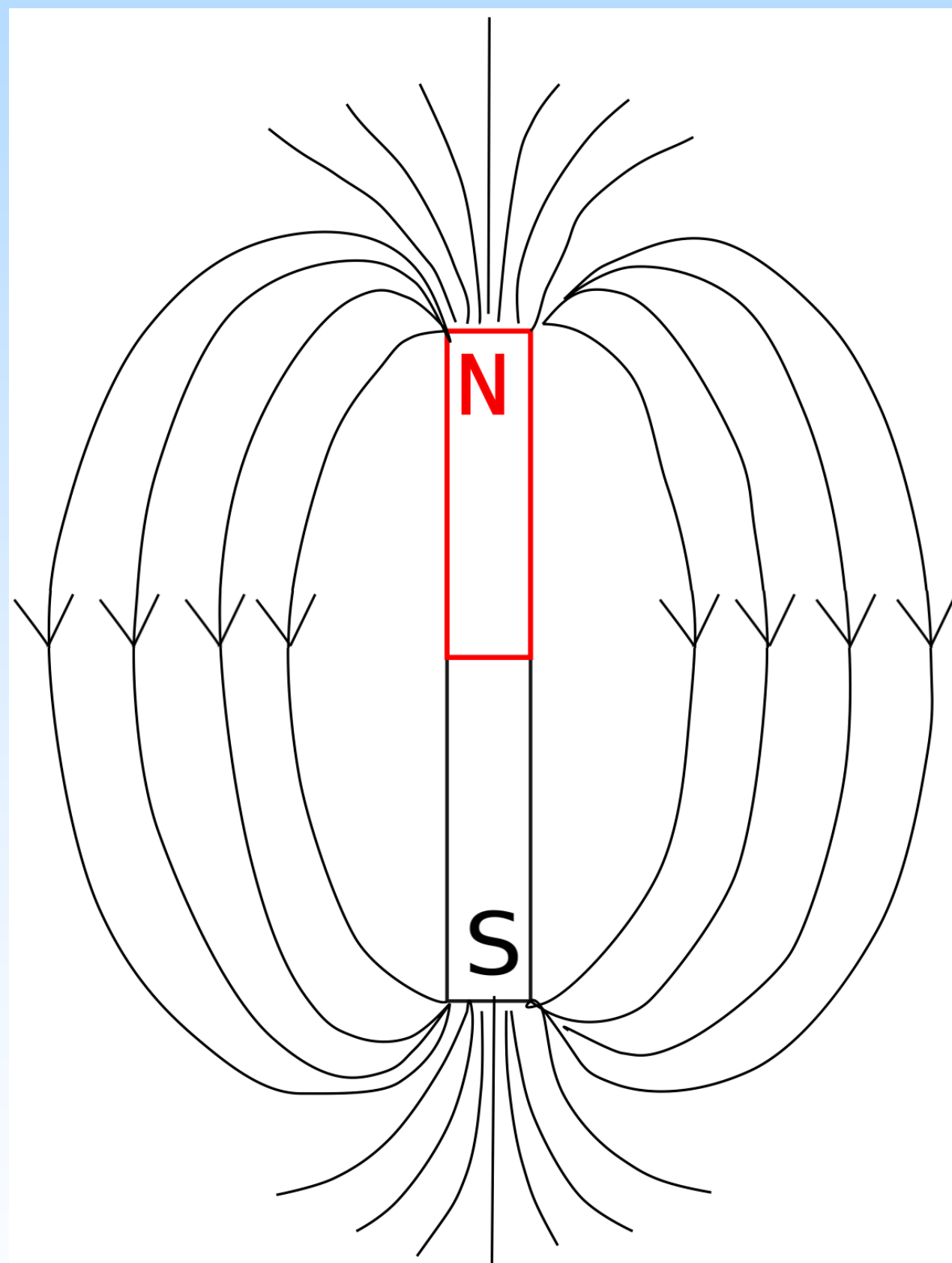


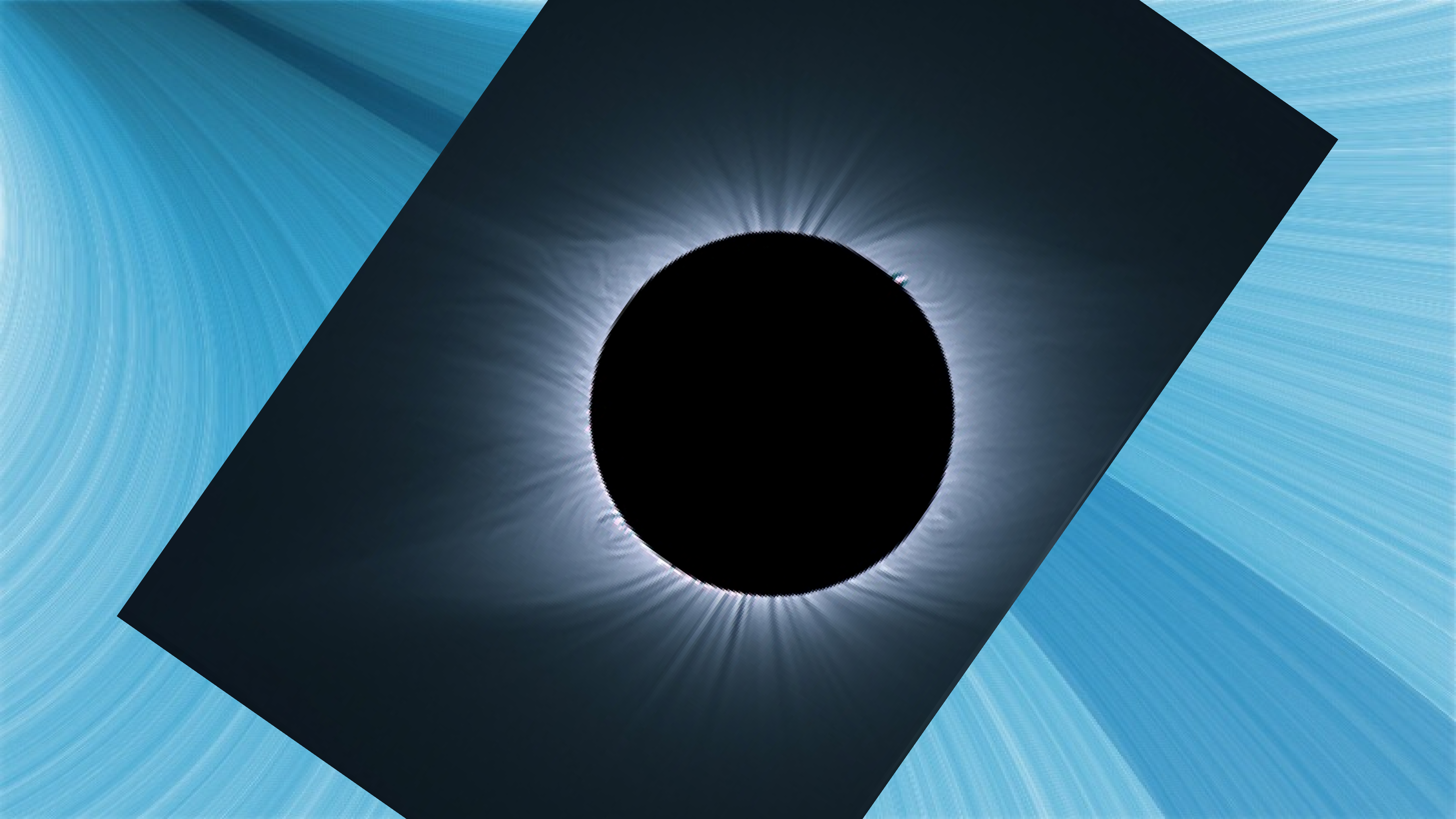
Magnetism is responsible for many of the changing features of the Sun.

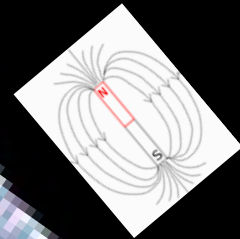
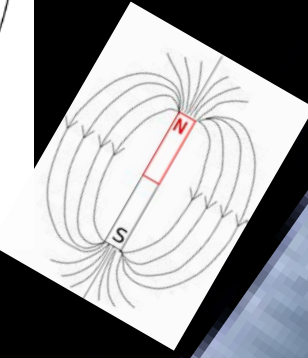
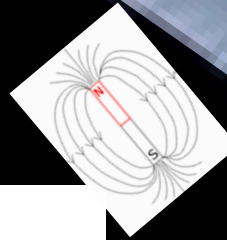
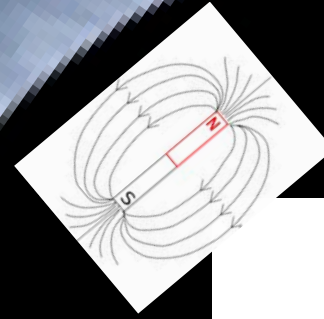
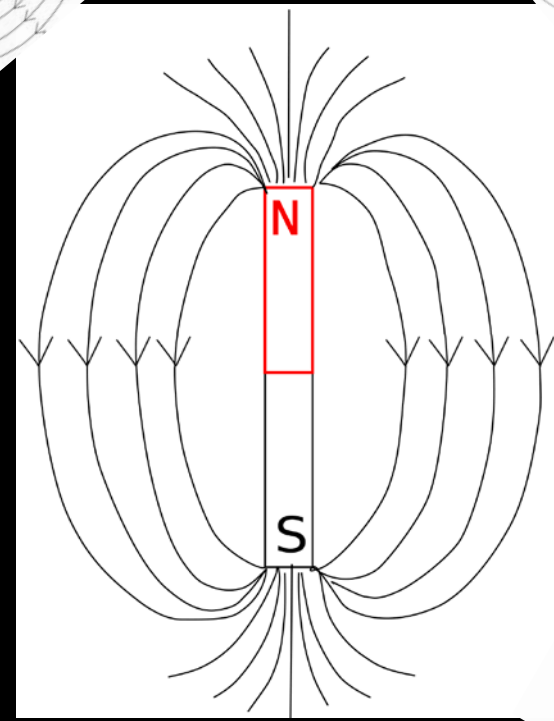












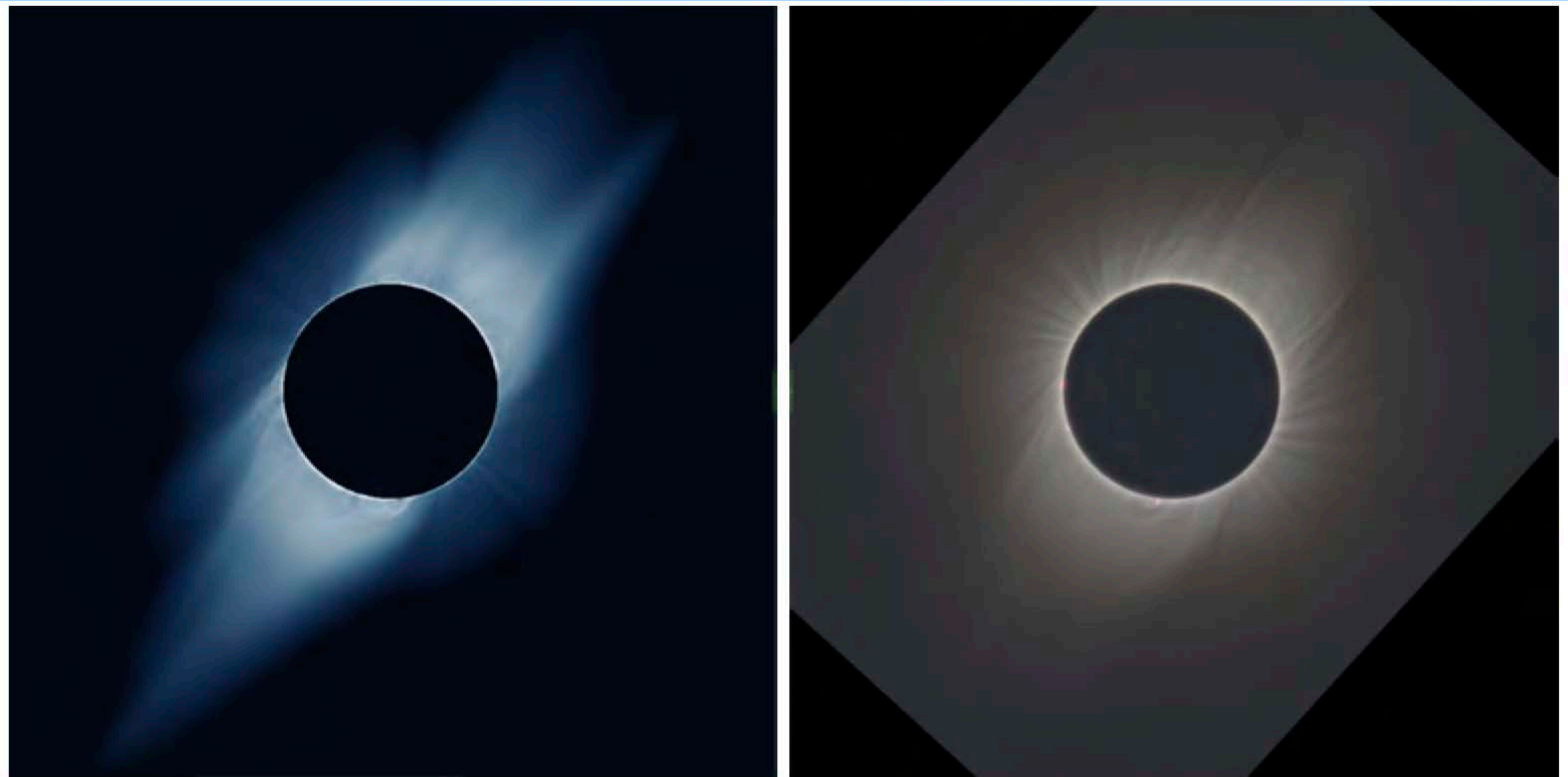
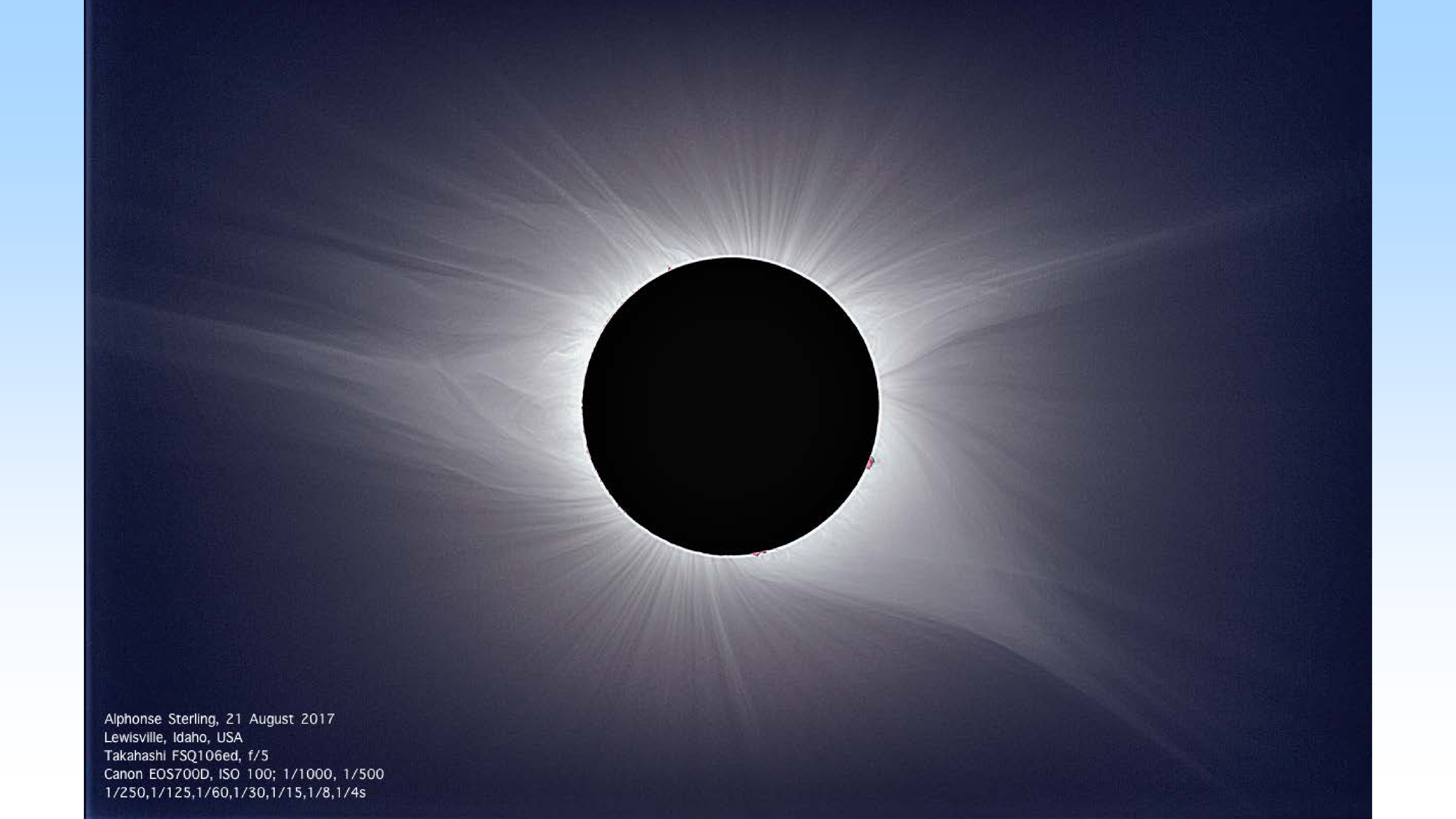


Figure 15. A comparison of our ground-based observations with data taken at Cerro Tololo (*right*), with pre-eclipse prediction produced by Predictive Sciences (*left*).

(From Pasachoff et al. 2020.)

2017 August 21, Lewisville, ID



Alphonse Sterling, 21 August 2017
Lewisville, Idaho, USA
Takahashi FSQ106ed, f/5
Canon EOS700D, ISO 100; 1/1000, 1/500
1/250, 1/125, 1/60, 1/30, 1/15, 1/8, 1/4s

Southern Skies

PM11:01 JUL/ 2/2019



